

ABSTRACT OF THE DISCLOSURE

A non-contact apparatus and method for removing a metal layer from a substrate are provided. The apparatus includes a rotatable anode substrate support member configured to support a substrate in a face-up position and to electrically contact the substrate positioned thereon. A pivotally mounted cathode fluid dispensing nozzle assembly positioned above the anode substrate support member is also provided. A power supply in electrical communication with the anode substrate support member and the cathode fluid dispensing nozzle is provided, and a system controller configured to regulate at least one of a rate of rotation of the anode substrate support member, a radial position of the cathode fluid dispensing nozzle, and an output power of the power supply is provided. The method provides for the removal of a metal layer from a substrate by rotating the substrate in a face up position on a rotatable substrate support member. A cathode fluid dispensing nozzle is positioned over a central portion of the substrate and a metal removing solution is dispensed from the cathode fluid dispensing nozzle onto the central portion of the substrate. An electrical bias is applied between the substrate and the cathode fluid dispensing nozzle, which operates to deplete the metal layer below the fluid dispensing nozzle.

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